

McLAUGHLIN
-BUICK



1914

McLAUGHLIN-BUICK

MOTOR CARS

Fours and Sixes
for
1914

The McLaughlin Motor Car Co., Limited,
Oshawa, Ontario.

Branches:— St. John, Montreal, Belleville, Toronto, Hamilton,
London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver.

The Nineteen Fourteen McLaughlin-Buick.

NO line of Motor Cars at any price can show more value than will be found in the McLaughlin-Buick for 1914. Every time tried feature is retained and such new ones as have demonstrated their worth have been added.

The Famous Overhead Valve Motor will continue to demonstrate itself as the greatest power producer ever used in an automobile.

The same economy of fuel consumption, same durability and consistent service, coupled with the old recognized go-ability insures the same reliable McLaughlin-Buicks.

The Delco system for starting, lighting, and ignition will be used on Models "B-24," "B-25," "B-36," "B-37," and "B-55," while Models "3" and "41" will be electrically lighted, and will be equipped with the Gray & Davis electric starter. These two systems are recognized as the highest grade, most reliable, and highest priced apparatus on the market. Nothing is too good for our cars.

All equipment will be in keeping with that standard, and permits the assertion that more than ever will the past leadership of McLaughlin-Buick cars be maintained and strengthened for 1914.

The McLaughlin-Buick family for 1914 will include the following models:

M O D E L S "B-24" A N D "B-25"

The wonderful motor that has been such a consistent performer for years, is still used in these models, and every detail that has become such a part of it remains unchanged. Small refinements have been made and such additions as might enhance its efficiency. The Roadster "B-24" is a beautiful job with deep, roomy seat, lots of leg room and a general air of comfort about it. The Touring Car "B-25" is large and roomy, with wide seats, beautifully trimmed and refined in every single line and detail.

MODEL "3"

This car is the successor of Model "29" of 1912 and Model "31" of 1913. In it however, are embodied a few changes which go for its improvement, making it an exceedingly attractive model, and one whose reliability has been proved by its performance in the past.

It is now equipped with an instrument board under the cowl, on which are attached the speedometer, oil sight feed glass, electric light and magneto switch, combined night lamp and trouble lamp outlet. Electric lights and generator, Gray & Davis electric starter are regular equipment. The rear springs are much longer, and the front springs are heavier than heretofore. The running boards are now clear of all obstructions, the storage battery being concealed under the rear seat. The tire irons are attached to the rear of the car.

MODELS "B-36" AND "B-37"

The roadster, "B-36" is a car of rare beauty with rich lines and fine appointments, carrying everything which goes towards making it an ideal car.

The touring car, "B-37" is designed on the very latest up-to-date lines. It is exceedingly well proportioned and presents a graceful appearance on the road. The seats are very wide and deep, and exceedingly comfortable. The equipment is very complete.

Both "B-36" and "B-37" have instrument boards at the back of the deep, beautifully designed cowl. Both cars are perfect examples of what is known to modern designing as the streamline effect.

MODEL "41"

This is a refinement of last year's Model "40," equipped with Gray & Davis electric lighting and starting devices.

A number of refinements have been made to give the car a more pleasing appearance. A number of details have also been changed and taken care of. The rear doors have been widened to 21 inches. There are two doors in front, making egress possible on either side of the car. It is beautifully upholstered and carefully finished throughout.

This model is now equipped with an instrument board under the cowl on which are attached the speedometer, oil sight feed glass, electric light and magneto switch, combined night lamp and outlet for trouble lamp. The running boards are now clear of all obstructions, the storage battery being concealed under the rear seat. The tire irons are attached to the rear of the car.

THE NEW McLAUGHLIN BUICK "SIX," MODEL "B-55"

While this is something entirely new in the McLaughlin-Buick family, we are, nevertheless, assured from what we know of the car and its ability to perform, and perform economically, its beautiful riding qualities, and the evenness of its "balance," that it will be enthusiastically welcomed and received with open arms by the buyers of this class of car.

Usually, six cylinder engines eat gasoline up at such a rate that they frighten the ordinary buyer, but in the case of our Model "B-55" where we know it is capable of giving, for average driving, considerably better than 17 miles to the gallon, the public will realize to what a fine point of perfection our Engineers have developed the wonderful overhead valve Buick engine.

We guarantee it to give more power and mileage than any other engine of similar dimensions made anywhere else in the world.

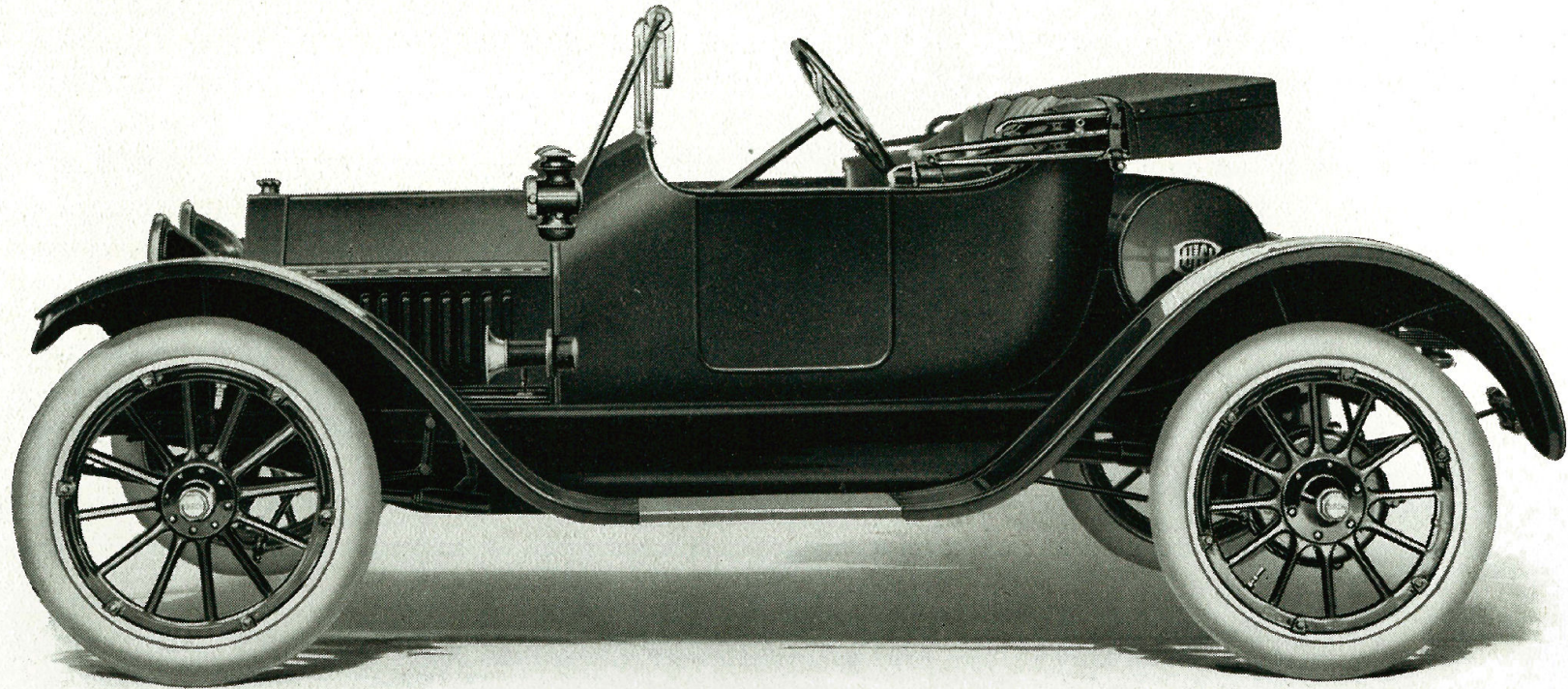
The severe and prolonged road tests which this car, in its entirety, has been subjected to, insure thorough reliability in every part.

The general appearance of the car is exceedingly pleasing, the body being an example of the pure streamline effect, the "bonnet," shroud and body being in a continuous unbroken line. The appointments are most luxurious.

The riding qualities are superb.

This is furnished regularly as a five passenger car. Extra seats can be furnished at an additional cost. The whole car is exceedingly roomy.

The upholstery is as deep and luxurious as it can be made. The front doors are 21 inches wide; the rear doors are 22 inches wide. It has an instrument board and cabinet at the back of the cowl. The springs are 2½ inches wide and very long. The gasoline tank is on the rear. The body is made of hammered aluminum throughout, and the fenders are full oval shape as illustrated.



MODEL "B-24" TWO PASSENGER ROADSTER.

The Valve-in-the-Head Motor.

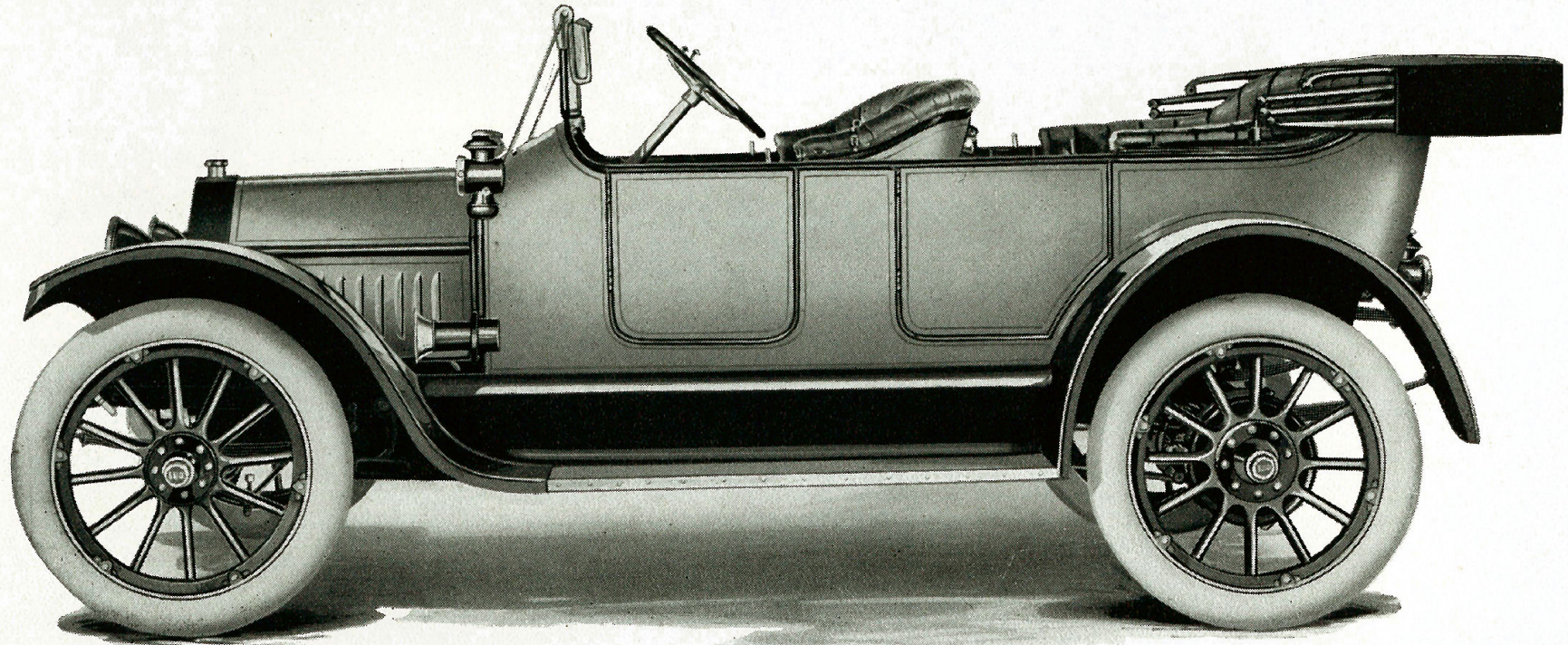
THE REASON WHY OF McLAUGHLIN-BUICK'S GREATER SPEED AND POWER.

THE MOTOR is the most intricate and expensive single factor in the construction of an automobile, representing in round numbers one-quarter of the cost of the finished product. With an electric self-starter built in it represents even more. So much for money-worth. In point of service possibilities and general satisfaction, the motor represents more nearly 75% of any automobile's value.

Intensely significant, therefore, is this big feature of McLaughlin-Buick construction—the overhead valve motor. Such an engine, not by theory but by the actual proof of over 150,000 Buicks now in use, develops from 15 to 20% more power than engines of any other type, of similar bore and stroke. The importance of this fact is worthy of a more detailed description.

An internal combustion motor operates by the conversion of a gas into energy through the medium of combustion. Unless every possible heat unit afforded by the act of combustion be conserved, the power stroke will suffer in direct ratio. Every possible chance for heat leakage must therefore be eliminated, if full power is to be obtained from a gas motor. A theoretically perfect engine would be one in which an extremely high temperature could be maintained in the metal cylinders. It is not practicable, however, to operate any mechanical device, especially a motor cylinder, when its surface is superheated; consequently some cooling device must be provided. In the case of an automobile motor, this is generally done by surrounding the cylinder walls with a hollow casing or jacket filled with water, which is kept in circulation and cools the cylinder walls uniformly. Yet in such cooling, many of the heat units are necessarily destroyed and wasted. The smaller the surface of cylinder walls which must be so cooled, the nearer a motor approaches the ideal.

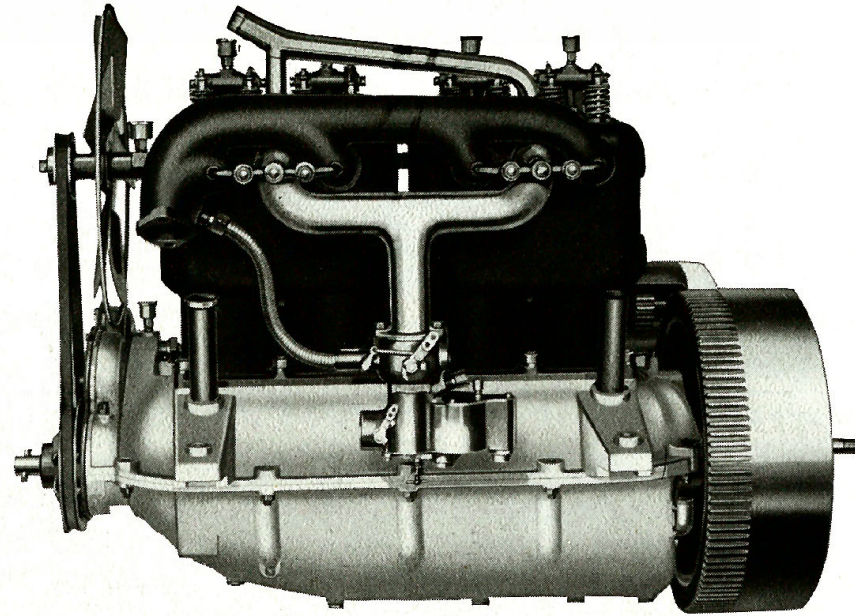
Mc LAUGHLIN — BUICK MOTOR CARS



MODEL "B-25" FIVE PASSENGER TOURING CAR.

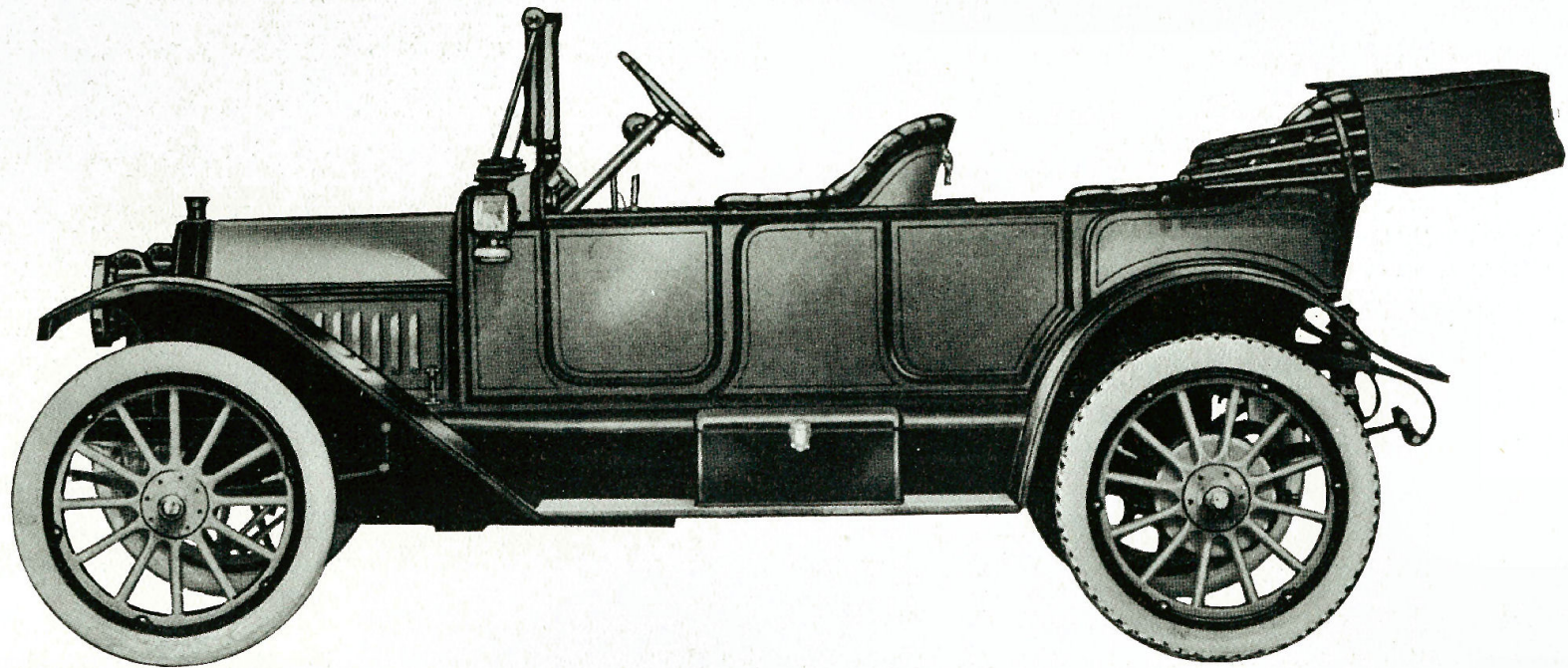
The amount of cylinder surface in the three types of motors now in common use may be roughly shown by comparing them to the letter T, an inverted L and an I. The first is called the T Head, the second the L Type, and the third the Overhead or Valve-in-the-Head motor. In the last mentioned type the cylinders have no arms or pockets; consequently they present the least surface to be cooling agent, and lose, therefore, fewer heat units. On the other hand, in the "T" or "L" types, where side pockets are cast on the cylinders for inserting the inlet and exhaust valves, the combustion chamber is enlarged by the exact amount of extra surface in these pockets; and these surfaces must be as perfectly water-jacketed as the remainder of the cylinder wall. The result is a greater amount of cooling surface, which is continually giving up many heat units wastefully. The straight cylinder of the overhead type avoids this, and consequently in the same size cylinder is able to develop greater power.

Apart from its savings of heat units, the Valve-in-the-Head type of motor has other superiorities. All motors must depend for their power upon the expansion of the compressed gas in the cylinders. This expansion is



MANIFOLD SIDE VIEW OF A McLAUGHLIN-BUICK MOTOR.

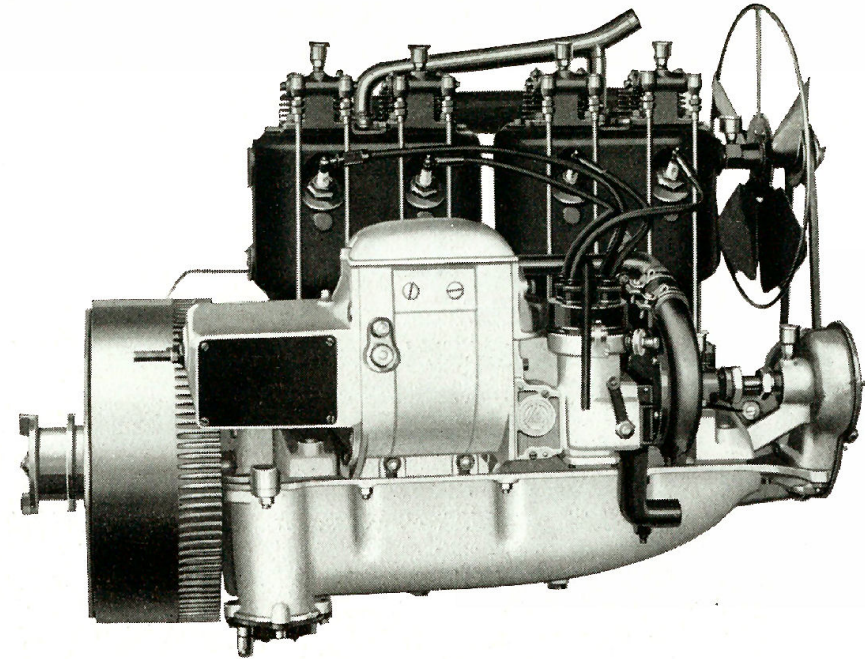
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MODEL "25" FIVE PASSENGER TOURING CAR.

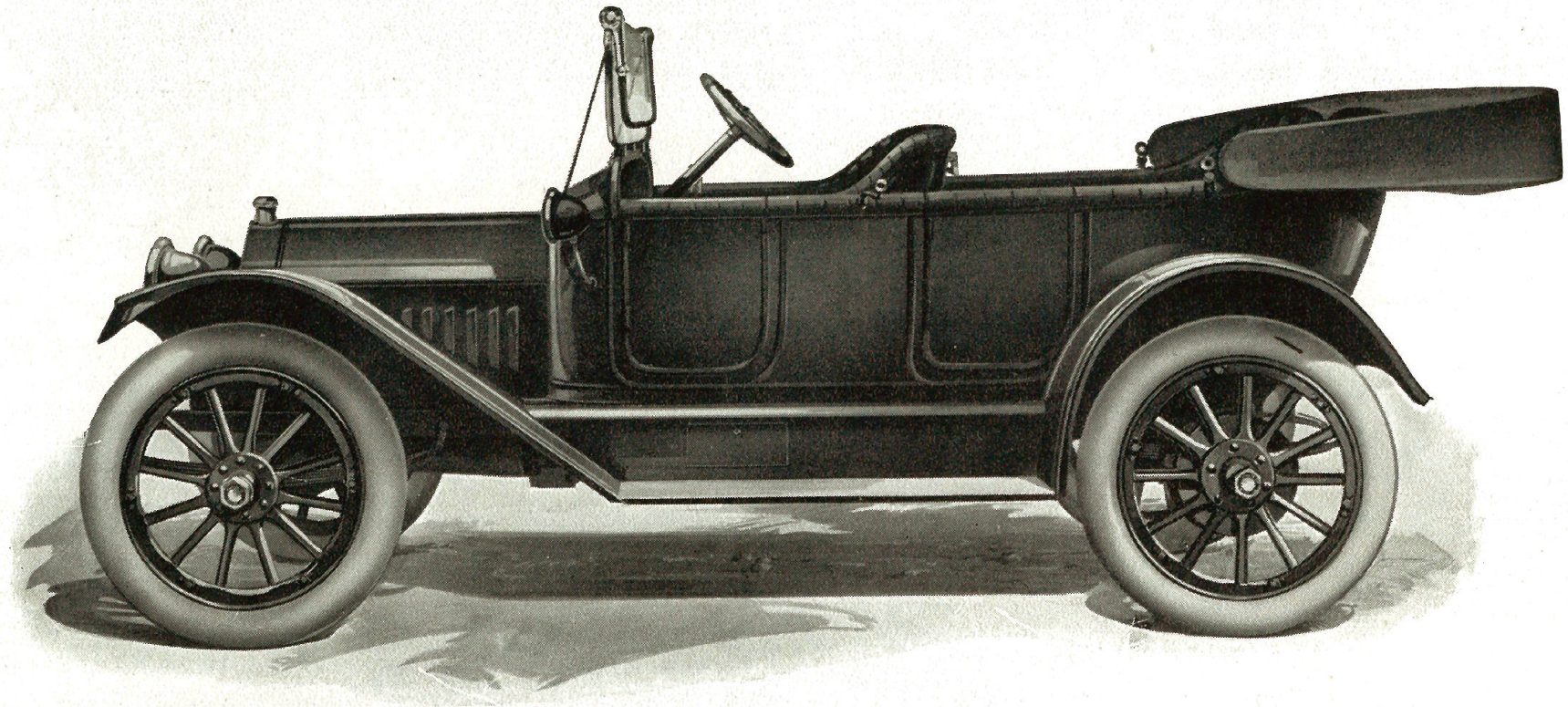
obtained by the firing or the burning of the gas under compression, and the rapidity with which this operation is performed and the greater its completeness, the more powerful will be the pressure developed against the head of the piston. It is this pressure of the exploding gas against the piston head that produces all the power of automobile motors.

A quick and complete explosion is therefore of prime importance. One of the first essentials to this is that all points in the combustion chamber be brought as nearly as possible to the point at which the flame is passed into the compressed gas; in other words, as nearly as possible to the points of the spark plug. This can be done only in a cylinder of the McLaughlin-Buick type of construction. As a matter of fact, the distance from the points of the spark plug to the farthest point in the combustion chamber in the McLaughlin-Buick motor is less than one-half that found in a "T" head motor of equal size; and some of the manufacturers of the latter type have been forced to use two spark plugs, one at each end of the combustion chamber, in order to secure the same results McLaughlin-Buick obtains with its Overhead and single plug. The disadvantages of doubling the number of spark plugs are too obvious to need further mention. In the



IGNITION SIDE VIEW OF A McLAUGHLIN-BUICK MOTOR.

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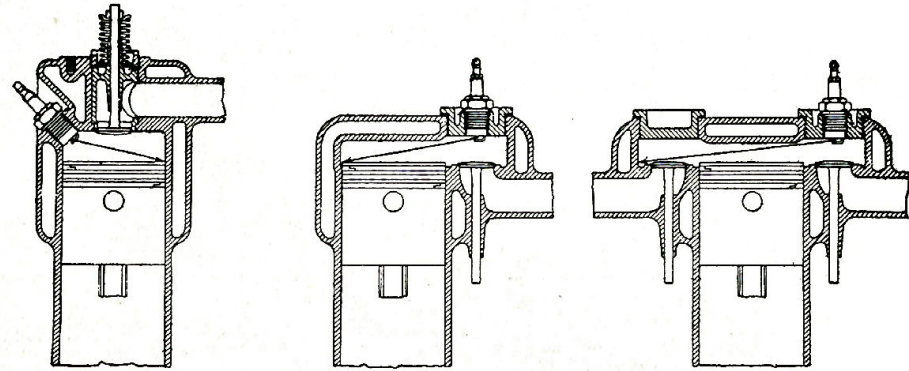


MODEL "3" FIVE PASSENGER TOURING CAR.

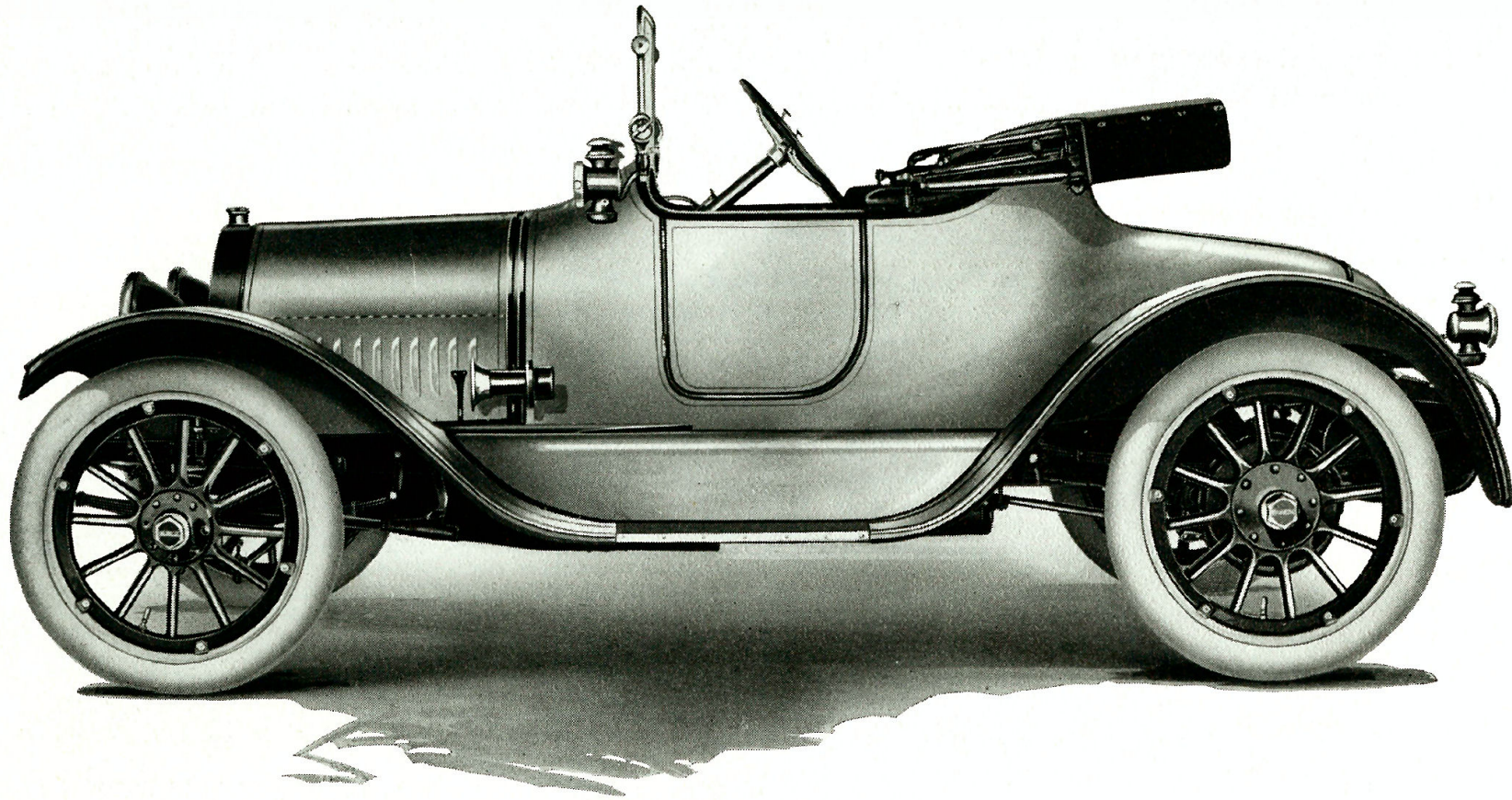
“L” type, as ordinary constructed, the spread of flame must pass through the gas from the sparking points across the cylinder and around into the side pocket over the exhaust valve. This is necessarily a slower process of combustion, and there is a corresponding loss of power.

Therefore as the gas expansion depends upon the rapidity of flame propagation, or, as commonly called, the explosion, it can be seen that the Overhead valve motor possesses an important advantage over both other types.

There are also additional advantages. Not only does the explosion in an Overhead valve motor prove more positive, but it cleans or scavenges the cylinders of burned gas more completely on the exhaust stroke of the piston. This is due to the fact that the exhaust stroke forces the burned gas straight out through the exhaust valve at the top of the cylinder, and not from the cylinder through a pocket and thence out. In the pocket type a certain part of the old gas remains after the exhaust valve closes. The dead gas that stays in the pocket of the motor cylinder is thus mixed with the fresh gas introduced through the inlet valve on the next charge, reducing it in amount and causing deterioration in quality. No such condition is possible with the Overhead valve. The fresh charge finds a perfectly clean cylinder. It fills it to the fullest capacity with clean gas, and this naturally produces a greater expansion and a correspondingly greater piston pressure when fired.



SHOWING COMPARATIVE DISTANCE FROM SPARK PLUG TO FURTHEST POINT IN CYLINDER.



MODEL "B-36" TWO PASSENGER ROADSTER.

The absence of pockets or chambers in the straight walled cylinders of the Overhead type makes possible more accurate machining in their manufacture and insures a more symmetrical chamber for combustion. As this chamber is merely the upper part of the cylinder, it allows this full machining, whereas the pockets on other types, from the very nature of their construction, cannot possibly be reached with any tool, and therefore cannot be machined or smoothed out. From necessity there must be certain places in these pockets where there are small irregularities and where the wall is rough.

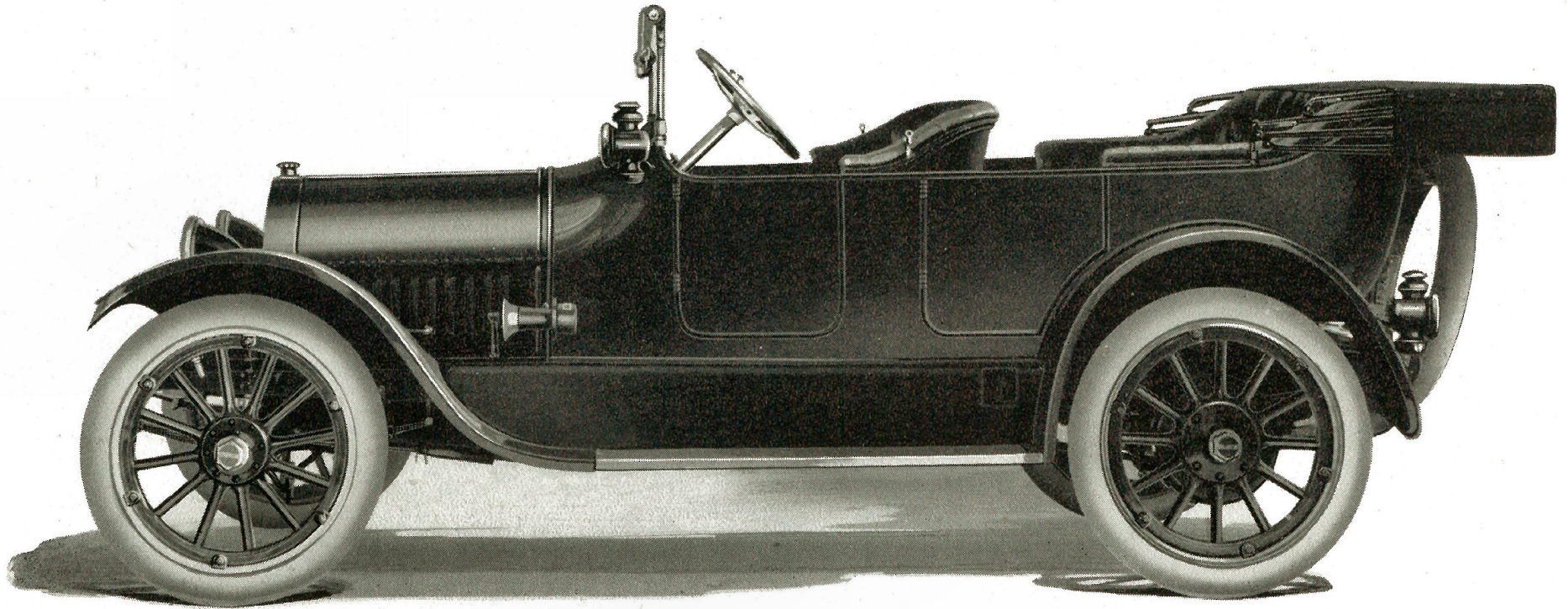
The smoother the surface the less is the tendency to carbonization. It naturally follows that these rough places provide a greater opportunity for pre-ignition, due to the overheating of deposits or projection, especially when the motor is under heavy duty, or where full throttle or high speed is required.

The fully machined, smooth, straight cylinder of the Overhead assures an absolutely consistent motor, as all cylinder surfaces are exactly alike, and each cylinder will handle its charge in exactly the same way, under all driving conditions. No irregularity or roughness can exist in any part of it.

The conclusion that must therefore be reached, after a careful study of the shape of the combustion chambers of the three types of motors, is that the Overhead is the most reliable and most powerful motor, granting, of course, that the elements of carburetion and ignition are equal.

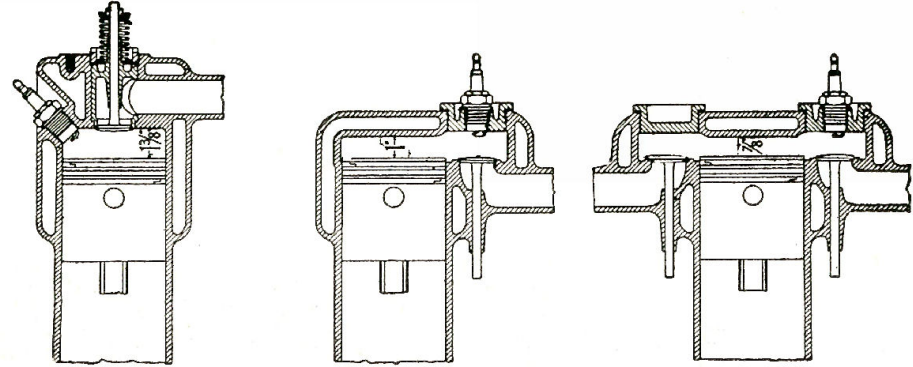
The purer the charge the more quickly it burns, as we have already seen. This explains the fuel economy of the McLaughlin-Buick motor and its ability to handle a lower grade of fuel. If a charge of inferior fuel is drawn into a cylinder and there mixed with a quantity of already burned gas, it is thereby reduced in burning

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MODEL "B-37" FIVE PASSENGER TOURING CAR

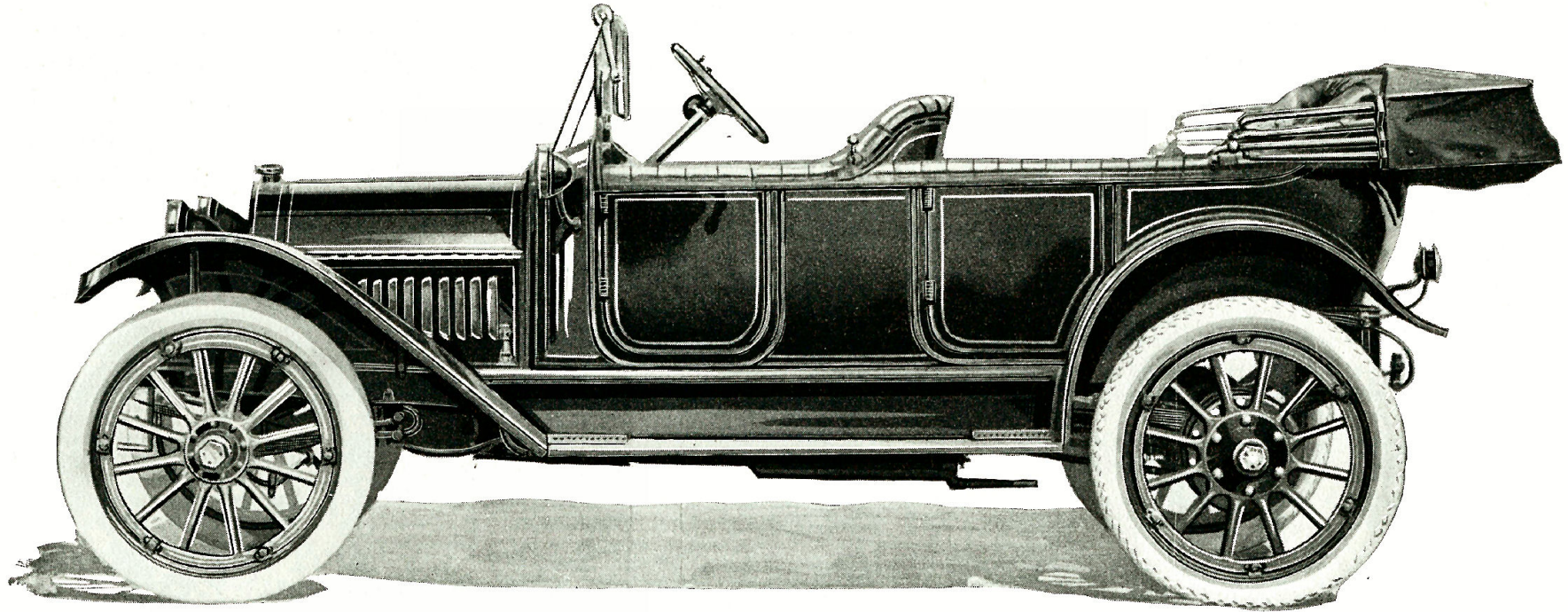
value until its power-developing possibilities are greatly impaired. This is especially true if the combustion is rendered slower because of the irregular or pocket construction in the cylinder walls, as is the case in the "T" Head or "L" type motor. But if the charge, though of inferior grade, be quickly fired and the dead gas be completely exhausted from the cylinder of a valve-in-the-head motor, the power production is much greater. The McLaughlin-Buick Overhead gets all the good there is out of the fuel.



SHOWING DIFFERENCE IN COMPRESSION

It also permits of lower compression than is possible with other types. In the "T" Head, with its two pockets branching off from the top of the cylinder, the gas must fill both the cylinder head and the valve chambers; and to compress this charge the piston must travel much closer to the top of the cylinder. On an ordinary motor it must go to within about $\frac{7}{8}$ of an inch. In the "L" Head, where there is but one side pocket, which is, however, much larger, as it must house both valves, the piston does not need to go quite so high, but stops about 1 to $1\frac{1}{8}$ inches from the top; but in the Overhead types, where there are no extra chambers or pockets to fill, the piston does not travel so far and stops compression $1\frac{3}{8}$ to $1\frac{1}{2}$ inches from the top.

Thus the conservation of heat units, the completeness and quickness of combustion, the freedom from carbon deposits, and the saving of power combine to create in the McLaughlin-Buick motor a surplus of power at least 20% over the "T" Head, and 15% over the "L" Head type of construction.



MODEL "41" FIVE PASSENGER TOURING CAR.

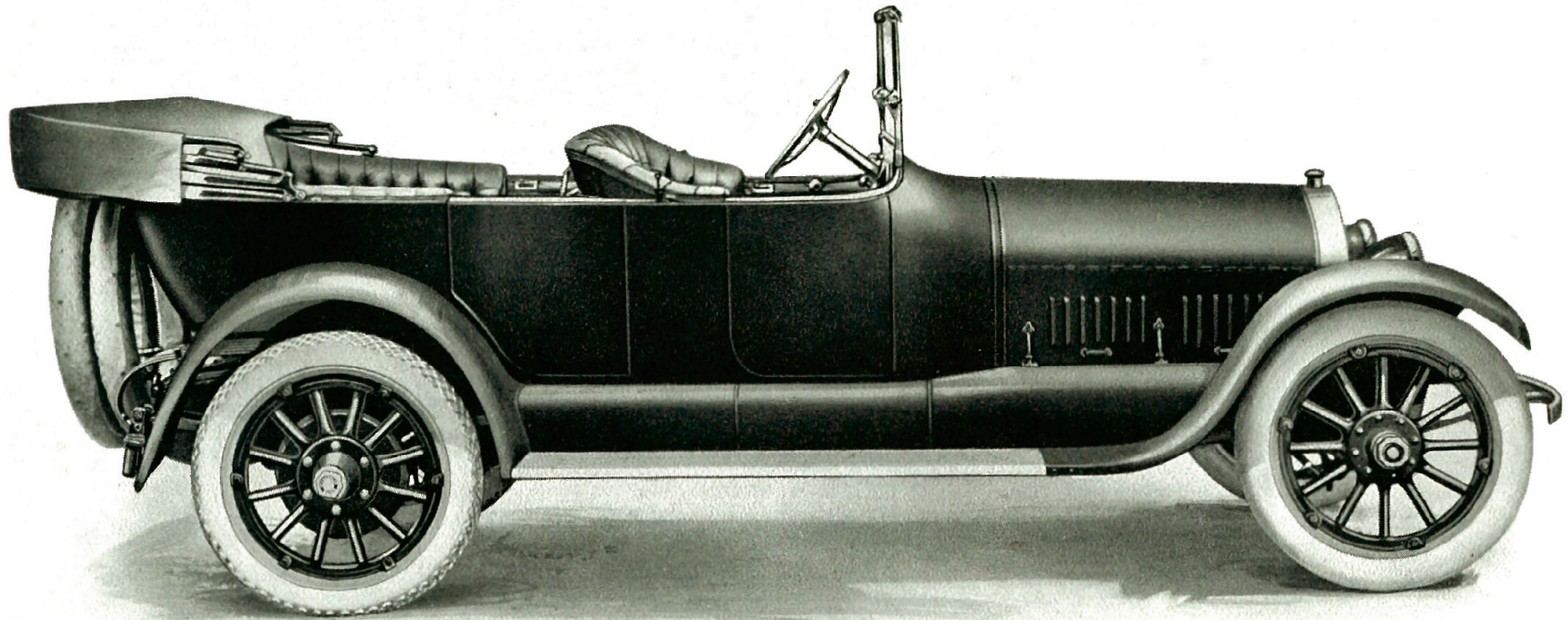
The McLaughlin-Buick is a clean motor, and a clean motor is long-lived and extra efficient.

Cylinders are kept lubricated by oil which is splashed against the pistons and distributed by them along the walls. Some of this oil works its way past the piston rings and up into the combustion chamber at the top. This surplus is thrown out through the exhaust valve along with the burned gases. If it passes out as vapor, no harm is done, and no opportunity to carbonize is given. But if the oil without vaporizing reaches hot surfaces, like the valve heads, the volatile parts are quickly thrown off, leaving deposit of carbon. But McLaughlin-Buick valves, being located in the top or head of the cylinders, are farthest from the piston and equidistant from the side walls. It is hard for oil to reach them. Herein they differ from other types, which are set low in the combustion chambers, practically on a level with the top of the piston when at upper center, and wherein any surplus oil is thus easily thrown into the pockets and over onto the valves.

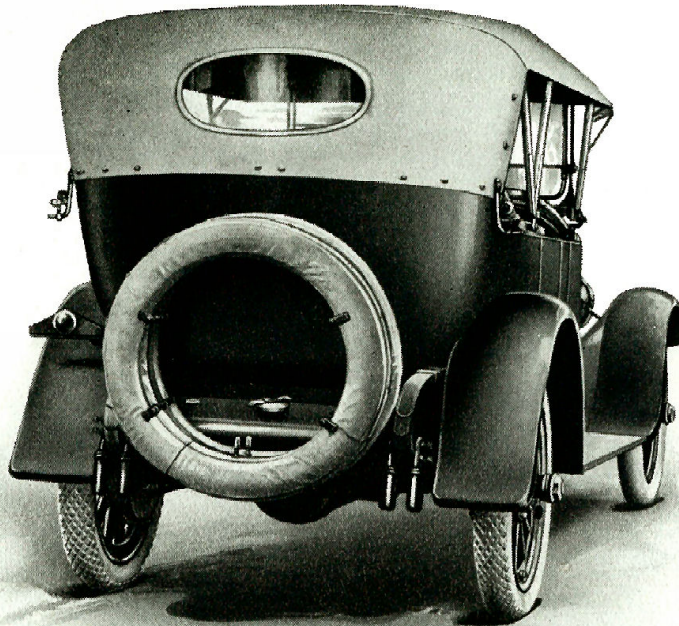
Furthermore, the arrangement of valves on the McLaughlin-Buick permits a longer duration of opening on the intake. This insures a charge of clean gas of the fullest capacity. In the smooth, pocketless combustion chamber, this gas burns rapidly and delivers a full power stroke, after which the burned gases are quickly and completely discharged through an unobstructed exhaust. It is a cycle of conservation.

These are the reasons why the McLaughlin-Buick motor, the backbone of the McLaughlin-Buick success, gives the owner not alone “uninterrupted use of his investment” but the “maximum of service for the minimum of cost.”

WHEN BETTER AUTOMOBILES ARE BUILT, WE WILL BUILD THEM.

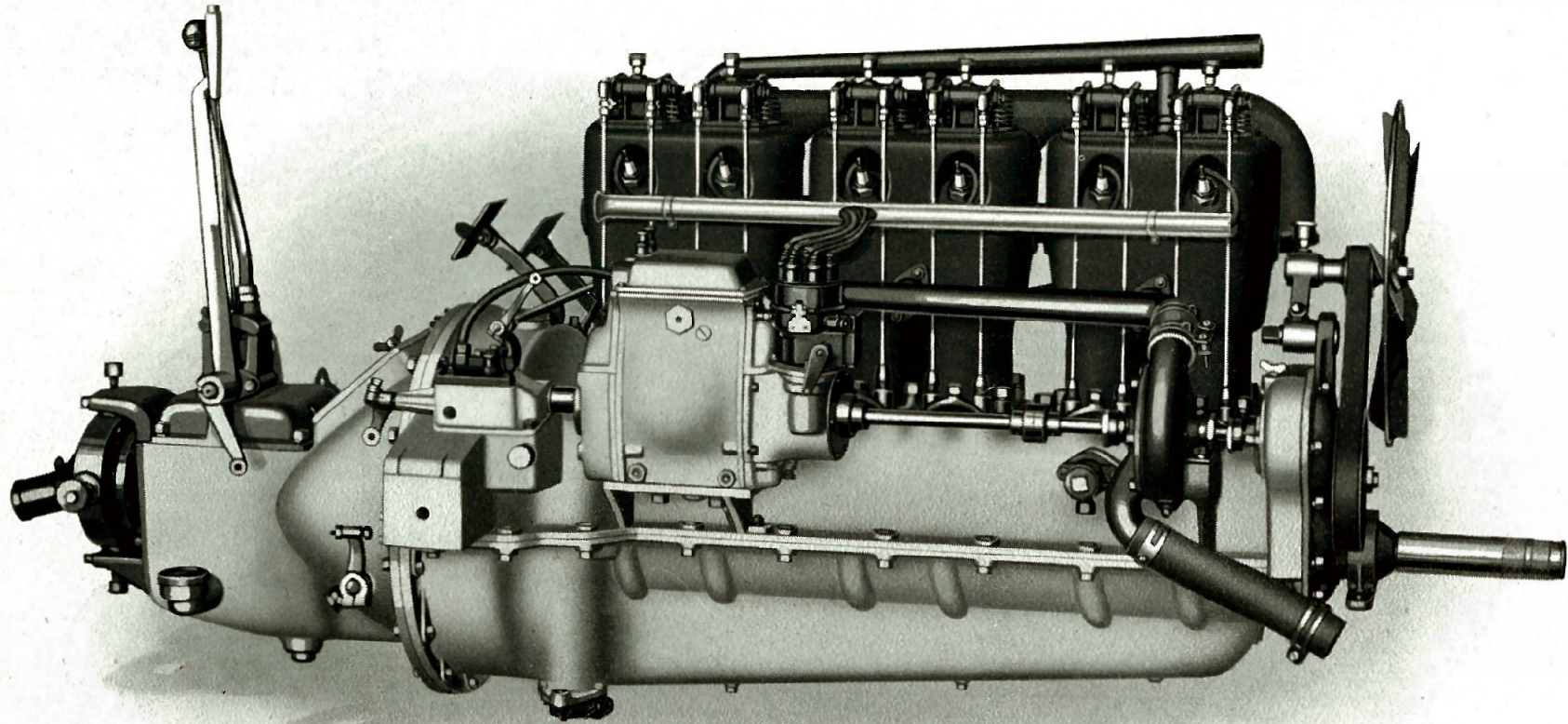


MODEL "B55" SIX CYLINDER TOURING CAR. (FIVE PASSENGER BODY.)



REAR VIEW MODEL "B 55."

Showing the Graceful, Full Oval Fenders and Pleasing Lines.



MODEL "B-55" MOTOR, SIX CYLINDER, 48 HORSE POWER.

Detailed Specifications. Models "B24" and "B25"

BODY—Model B24: Two passenger Roadster type, with deep cowl. Extra width doors—Model B25: Touring type, five passenger, deep cowl, extra wide doors; good wide seats and ample leg room.

FRAME—Pressed steel, special construction, extra strong, three and one-half inch drop.

SPRINGS—High quality spring steel, heat treated. Front, semi-elliptic; rear, three-quarter elliptic with scroll ends.

FRONT AXLE—Drop forged I-beam section with drop forged yokes, tie rod ends and steering spindles. Front wheels fitted with large cup and cone ball bearings.

REAR AXLE—Heavy construction, three-quarter floating type; heat treated axle shafts, running on special alloy steel roller bearings; 12-inch brake drums.

WHEELS—Wood, artillery type, with demountable rims; large hub flanges.

TIRES—Both Model B24 and B25, 32x3½ inches, non-skid on rear.

WHEEL BASE—105 inches.

TREAD—56 inches.

MOTOR—Four cylinder, four cycle, valve-in-the-head type. Cylinders semi-steel analysis, cast in pairs. Three bearing crank shaft with die cast bronze backed, babbitt lined bearings. Exceptionally large bearing surfaces. Valves and valve mechanism exceptionally quiet. Ball ended adjustable push rods working in felt oil retaining socketed rocker arms. Develops fully 28 horse power.

COOLING—Water circulated by gear driven centrifugal pump, bolted to crank case. Nickel plated brass inlet and outlet water manifolds. Radiator vertical tube and plate type with large water capacity. Pressed steel fan (attached to motor) belt driven from crank shaft pulley, running on plain bearings for quietness.

IGNITION—Jump spark; current supplied by Delco system which furnishes also current for electric lights and for the electric cranking device, reserve set of dry cells.

CARBURETOR—Automatic float feed of great efficiency, requiring the minimum of adjustment to meet weather changes.

LUBRICATION—Self contained, constant level splash system with distributing pipe enclosed within crank case; oil circulated by gear pump. Sight feed on dash.

CLUTCH—Large leather faced aluminum cone of special design; springs under leather to prevent harsh action.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Heat treated nickel steel transmission gears. Clutch gear, heat treated and special steel, running on annular ball bearings; counter gear, nickel steel, heat treated running on bronze bearings.

DRIVE—Direct to bevel gears in differential; propeller shaft running on special alloy steel roller bearings with ball thrust. Nickel steel, heat treated drive shafts, carried on special alloy steel roller bearings. Differential gears, steel drop forgings, case hardened; bevel pinion, case hardened nickel steel. Teeth, corrected form, insuring uniform strength in both pinion and bevel gears.

BRAKES—Emergency, internal expanding; service, external contracting. Both on rear wheel hubs. Very effective and positive, but entirely eliminating dragging and grabbing; anti-rattling.

STEERING GEAR—Located on left side; semi-irreversible; split nut and worm type; fully adjustable; ball thrust bearing. Seventeen-inch steering wheel with inserted spider.

LEFT DRIVE.

CONTROL—Friction-retained spark and throttle levers on top of steering wheel. Independent foot accelerator and muffler cut out. Pedals for service brake and clutch; levers for gear changes and emergency brake conveniently located in center of body.

CENTER CONTROL.

FINISH—Round front, deep tilted cushions upholstered in black leather over genuine curled hair and deep coil springs. Dash with deep handsome cowl. All bright parts nickel plated.

COLOR—Bodies, blue or gray; chassis and wheels, black.

STARTER—Delco system. Electric lights and electric self-starter are integral parts of the car.

STANDARD EQUIPMENT—Electric head lamps with "dimming" attachment, doing away with side lamps entirely, electric tail lamp, electric canopy lamp, electric trouble lamp with extension, instrument board at back of cowl, all lamps black, nickel trimmed; electric horn; (robe rail and foot rail in Model B25), one extra demountable rim; tire irons on rear; complete set of tools; high-grade mohair top and dust hood; new style, rain vision, clear vision wind shield; non-skid tires on rear; speedometer. (No allowance will be made for any part of standard equipment omitted by customer's order.)

PRICES—Model B24, \$1,250 f. o. b. Oshawa; Model B25, \$1,460 f. o. b. Oshawa.

Detailed Specifications. Model "25."

BODY—Five passenger touring type, flush sides, shroud on front.

FRAME—Pressed steel, special construction, extra strong; three and one-half inch drop.

SPRINGS—Front, semi-elliptic; rear, three-quarter elliptic, with scroll ends.

FRONT AXLE—Drop forged "I" beam with heat treated drop forged yokes, tie rod ends and steering spindles. Front wheels fitted with large cup and cone ball bearings.

REAR AXLE—Heavy construction, semi-floating type; special high carbon steel axle shaft, running on Hyatt alloy steel roller bearings, 12-inch brake drums.

WHEELS—Wood, artillery type; universal rims; large hub flanges.

TIRES—32x3½ inches, non-skid on rear.

WHEEL BASE—105 inches.

TREAD—56 inches.

MOTOR—Four cylinder, four cycle, valve-in-the-head type. Cylinders semi-steel analysis, cast in pairs. Three bearing crank shaft with die cast and bronze backed babbit bearings. Exceptionally large surface. Valves and valve mechanism exceptionally quiet. Develops fully 28 H. P.

COOLING—Water circulated by gear driven centrifugal pump, bolted to crank case. Brass inlet and outlet manifolds. Radiator, vertical tube and plate type with large water capacity. Pressed steel fan (attached to motor), belt driven from crank shaft pulley, running on two cone type ball bearings; center distances easily adjusted to take up stretch in belt.

IGNITION—Jump spark. Current supplied by high tension magneto, with reserve set of dry cells.

CARBURETOR—Automatic float feed of great efficiency requiring the minimum of adjustment to meet weather conditions.

LUBRICATION—Self-contained, constant level, splash system; oil circulated by gear pump. Sight feed on dash.

CLUTCH—Large leather faced aluminum cone of special design; springs under leather to prevent harsh action.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Heat treated nickel steel transmission gears; chrome-nickel steel transmission shaft, heat treated

and ground; clutch gear, heat treated special steel, running on annular ball bearings; counter gear, nickel steel, heat treated, running on bronze bearings.

DRIVE—Direct to bevel gears in differential; propeller shaft, running on Hyatt alloy steel roller bearings, with ball thrust. Special high carbon steel drive shaft, carried on Hyatt alloy steel roller bearings. Differential gears, open hearth carbon steel forgings, case hardened; pinion, case hardened nickel steel. Teeth, corrected form, insuring uniform strength in both pinion and bevel gears.

BRAKES—Emergency, internal expanding; service, external contracting, both on rear wheel hubs. Very effective and positive, but entirely eliminating dragging and grabbing.

STEERING GEAR—Semi-irreversible; split nut and worm type, with ball thrust bearing; fully adjustable, 17-inch steering wheel.

CONTROL—Friction retained spark and throttle levers, placed above steering wheel. Independent foot accelerator and muffler cutout. Pedals for service brake and clutch; side levers for gear changes and emergency brake conveniently located inside of body and entirely enclosed.

RIGHT HAND CONTROL.

FINISH—Upholstered in genuine No. 1 hand buffed leather over high-grade curled hair, soft spring backs, deep easy cushions. Pullman style with soft front. Extra heavy rubber mat. All bright parts nickel-plated.

COLORS—Combination blue and black, or gray and black.

STANDARD EQUIPMENT—Oil side and tail lamps, gas head lamps, combination black and nickel; concealed Tally-O horn, tire irons, scuff plates, robe rail, foot rail, complete set of tools, including jack, pump and tire repair kit, size "B" Presto-O-Lite tank, priming device, mohair top with dust hood, clear vision glass front, speedometer. (No allowance will be made for any part of standard equipment omitted by customer's order.)

Electric lighting system, including Vesta dynamo, combination oil and electric side and tail lamps at extra cost.

PRICE—\$1,350 f. o. b. Oshawa. Electric lighting generator, electric head lamps and combination side and tail lamps, extra \$110.

Detailed Specifications. "Model 3."

BODY—Very roomy fore door touring type, five-passenger, sides flush and smooth, bell shaped rear seat panel.

FRAME—Pressed steel, special construction, three and one-half inch drop.

SPRINGS—Extra long; semi-elliptic front, three-quarter elliptic rear, with scroll ends and rebound snubbers.

FRONT AXLE—Drop forged "I" beam, with drop forged yokes, tie rod ends and steering spindles; front wheels fitted with extra large cup and cone ball bearings.

REAR AXLE—Semi-floating type; special alloy steel axle shafts, running on special high duty roller bearings, bearing in front end propeller shaft, no radius rods.

WHEELS—Wood, artillery type, with quick demountable rims, extra large hub flanges.

TIRES—35x4 inches, non-skid on rear.

WHEEL BASE—108 inches.

MOTOR—Unit Power plant, four cylinders, four cycle, valve-in-the-head type. Cylinders semi-steel analysis, cast in pairs. Three bearing crank shaft with bronze backed babbit lined bearings. Exceptionally large bearing surfaces. Develops under brake test 32 H.P. Valves large and valve mechanism exceptionally quiet.

COOLING—Water, circulated by gear driven centrifugal pump. Brass inlet and outlet water manifold. Radiator, vertical tube and plate type with large water capacity. Pressed steel fan running on anti-friction bearings, belt driven from crank shaft pulley; center distance of fan pulleys easily adjusted to take up stretch in belt.

IGNITION—Jump spark. Current supplied by high tension magnet and batteries.

CARBURETOR—"Marvel" automatic float feed.

LUBRICATION—Automatic splash system. Oil uniformly distributed. Supply maintained by positive driven slow speed plunger with sight feed on dash.

CLUTCH—Extra large leather faced aluminum cone; springs under leather to prevent harsh action.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse; nickel steel transmission gears, heat

treated. Chrome nickel steel transmission shaft, heat treated and ground. Clutch gear running on annular ball bearings; counter gear, nickel steel, heat treated, running on bronze bearings.

DRIVE—Direct to bevel gears in differential. Drive shaft carried on high duty, nickel steel roller bearings. Differential gears nickel steel, specially heat treated. Teeth, corrected form, insuring uniform strength in both pinion and bevel gears.

BRAKES—Emergency, internal expanding; service, external contracting, both on rear wheel hubs. Very effective and positive, but entirely eliminating dragging and grabbing.

STEERING GEAR—Semi-irreversible; split nut and worm type, fully adjustable; ball thrust bearing. 17-inch hand wheel with inserted spider. **RIGHT DRIVE.**

CONTROL—Spark and throttle lever on top of steering wheel. Independent foot accelerator. Pedals for service brake and clutch; side levers for gear changes and emergency brake conveniently located inside of body and entirely enclosed. **RIGHT HAND CONTROL.**

FINISH—Handsomely painted. Upholstered in extra fine quality black leather, over genuine curled hair and deep coil springs. Handsome cowl dash. Running board specially oil treated and linoleum covered, with heavy nickel binding. Heavy rubber mat in front; fibre mat in tonneau. All bright parts heavily nickel-plated. Rear of front seat partly leather covered.

STANDARD EQUIPMENT—Special dynamo, full electric head lights, with "dimming" attachment, doing away with the side lamps entirely, electric tail lamp, including canopy lamp under cowl, instrument board at back of cowl, also trouble lamp with extension; electric horn; tire irons on rear of car; foot rest; robe rail; complete set of tools, including jack, pump, and tire repair kit; Gray and Davis electric starting device, with special storage battery, large size speedometer; rain vision, clear vision glass front; mohair top with dust hood.

COLOR—Body, blue or black; chassis and wheels, black.

No allowance will be made for any part of standard equipment omitted by customer's order.

PRICE—\$1.650 f. o. b. Oshawa.

Detailed Specifications. Models "B-36" and "B-37"

BODY—Model B36; two-passenger closed back roadster type, undivided seat, extra wide doors, large air pressure gasoline supply tank at rear of frame. Handsomest roadster body built. Model B37: Very roomy, fore door touring type; five passenger; sides flush and smooth; extra wide rear seat.

FRAME—Pressed steel, special construction, extra strong; four-inch drop.

SPRINGS—First quality spring steel, heat treated, extra wide and long. Front, semi-elliptic; rear, three-quarter elliptic with scroll ends.

FRONT AXLE—Drop forged I-beam section, heat treated with drop forged yokes, tie rod ends and steering spindles. Front wheels fitted with extra large cup and cone ball bearings.

REAR AXLE—Three-quarter floating type; nickel steel, heat treated, steel axle shafts, running on special high duty roller bearings, universal bearing on front end of third member takes all driving and torsional strains relieving universal joint.

WHEELS—Wood, artillery type, with demountable rims. Extra large hub flanges.

TIRES—34 x 4, non-skid on rear.

WHEEL BASE—112 inches.

TREAD—56 inches.

MOTOR—Unit power plant, four cylinder, four cycle, valve-in-the-head type. Cylinders semi-steel analysis, cast in pairs. Three bearing crank shaft with die cast bronzed backed babbitt lined bearings. Exceptionally large bearing surfaces. Develops fully 35 h.p. under brake test. Valve mechanism exceptionally quiet, with ball end adjustable push rods working in socketed felt oil retaining rocker arms.

COOLING—Water circulated by gear driven centrifugal pump. Nickel plated inlet and outlet water manifolds. Radiator, vertical tube and plate type with large water capacity. Pressed steel fan running on anti-friction bearings, belt driven by pump shaft pulley; center distances of fan pulleys easily adjusted to take up stretch in belt.

IGNITION—Jump spark; current supplied by Delco system which also furnishes current for electric lights and for the electric cranking device, reserve set of dry cells.

CARBURETOR—Highly efficient automatic flood feed.

LUBRICATION—Self contained, constant level splash system with distributing pipe enclosed within crank case; oil circulated by gear pump. Sight feed on dash.

CLUTCH—Extra large leather faced aluminum cone; springs under leather to prevent harsh action.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Heat treated nickel steel transmission gears. Clutch gear, heat treated special steel, running on

annular ball bearings, counter gear nickel steel, heat treated, running on bronze bearings.

DRIVE—Direct to bevel gears in differential; nickel steel, heat treated propeller shaft, running on special alloy steel roller bearings, with ball thrust. Drive shafts, carried on special alloy steel roller bearings. Differential gears, open hearth carbon steel forgings, case hardened; bevel pinion, case hardened nickel steel. Teeth, corrected form, insuring uniform strength in both pinion and bevel gears.

BRAKES—Emergency, internal expanding; service, external contracting. Both on rear wheel hubs. Very effective and positive, but entirely eliminating dragging and grabbing; anti-rattling.

STEERING GEAR—Located on left side; semi-irreversible; split nut and worm type; fully adjustable; ball thrust bearing. Eighteen-inch steering wheel with inserted spider.

LEFT DRIVE.

CONTROL—Friction retained spark and throttle levers on top of steering wheel. Independent foot accelerator and muffler cut out. Pedals for service brake and clutch; levers for gear changes and emergency brake conveniently located inside in center of car.

CENTER CONTROL.

FINISH—Handsomely painted. Round front deep tilted cushions. Upholstered in extra fine quality black leather, over genuine curled hair and deep coil springs. Handsome cowl, extra deep, with instrument board on rear. Running boards and front boards specially oil treated and linoleum covered, with heavy bindings; all bright parts are heavily nickel plated.

COLOR—Body, blue or gray; chassis and wheels black.

STARTER—The Delco system electrical self cranker is an integral part of the car, combined with the necessary equipment for lighting and for ignition.

STANDARD EQUIPMENT—Electric head lamps, with special "dimming" attachment, doing away with side lamps entirely, electric tail lamp, canopy lamp on instrument board at back of cowl; electric trouble lamp with extension; electric horn; tire irons; demountable rims with one extra rim; (foot rail and robe rail on B37); complete set of tools; high-grade mohair top with dust hood, speedometer; new style solid ventilating clear vision wind shield on "B36" and on "B37" special rain vision and ventilating. (No allowance will be made for any part of standard equipment omitted by customer's order.)

PRICE—Model B36, \$1,675 f. o. b. Oshawa; Model B37, \$1,775 f. o. b. Oshawa.

EXTRAS—Power tire pump with pressure gauge and all attachments, extra \$50.00.

Detailed Specifications. "Model 41."

BODY—Five passenger, fore door type, with two doors in front, flush sides, beautiful curves, bell shaped rear seat.

FRAME—Pressed steel, extra heavy construction, double drop, 6-inch rise over rear axle.

SPRINGS—Extra long, semi-elliptic front, three-quarter elliptic rear with scroll ends.

FRONT AXLE—Drop forged "I" beam section, with drop forged yokes, tie rod ends and steering spindles. Front wheels fitted with extra large cup and cone ball bearings.

REAR AXLE—Full floating type; special alloy steel axle shafts; special high duty roller bearings.

WHEELS—Wood, artillery type, with quick demountable rims. Extra large hub flanges and heavy spokes.

TIRES—36 x 4 inches. Quick detachable and demountable rims. "Non-skid" on rear.

WHEEL BASE—115 inches.

TREAD—56 inches.

MOTOR—Four cylinder, four cycle, valve-in-the-head type. Cylinders cast en bloc; semi-steel analysis; valve seats are integral with the head of the cylinders and no valve cages are used. The heads are detachable for valve grinding and allow complete cleaning of all combustion chamber walls. The valves and valve seats are completely water jacketed and keep unusually cool, thereby reducing the tendency to carbonize to a minimum. Three bearing crank shaft with die cast babbit and bronze backed bearings. Exceptionally large bearing surfaces, 40 actual H. P.

COOLING—Water, circulated by gear driven centrifugal pump, bolted to crank case. Brass inlet and outlet water manifolds. Radiator, cellular type with large water capacity. New style aluminum fan (attached to motor), running on anti-friction bearings. Center distances of fan pulley easily adjusted to take up stretch in belt.

IGNITION—Jump spark. Current supplied by high tension magneto and batteries.

CARBURETOR—Automatic float feed, supplied by gravity flow from extra large gasoline tank under front seat.

LUBRICATION—Self-contained splash system; oil circulated by gear pump.

CLUTCH—Extra large leather faced aluminum cone; springs under leather to prevent harsh action.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse; nickel steel transmission gears, heat treated and ground. Clutch gear running on annular ball bearings; counter gear, nickel steel, running on hard bronze bearings.

DRIVE—Direct to bevel gears in differential. Drive shaft carried on high duty, nickel steel bearings. Differential gears, nickel steel, specially heat treated. Teeth, corrected form, insuring uniform strength in both pinion and bevel gears.

BRAKES—Emergency and service, internal expanding; brake drums extra large. Both on rear wheel hubs. Very effective and positive, entirely eliminating dragging or grabbing.

STEERING GEAR—18-inch wheel with inserted spider, semi-irreversible split nut and worm type, fully adjustable; ball bearing thrust. **RIGHT DRIVE.**

CONTROL—Spark and throttle levers on top of steering wheel. Pedals for service brakes and clutch, foot accelerator and muffler cutout; side levers for change gear and emergency brake inside body. **RIGHT HAND CONTROL.**

FINISH—Luxuriously upholstered in black leather over genuine curled hair, specially constructed deep soft back springs, 12-inch cushions, Turkish style; running boards and floor boards oil treated, linoleum covered, metal bound. Deep fibre mat in tonneau. General finish, combination black and nickel throughout. Rear of front seat partly leather covered.

COLORS—Combination blue and black throughout.

STANDARD EQUIPMENT—Special dynamo, electric head lamps with "dimming" attachments, doing away with the side lamps entirely, electric tail lamp, electric canopy lamp under cowl, instrument board at back of cowl, electric trouble lamp with extension; Gray and Davis electric self-cranking device, robe rail, foot rail; fibre tonneau mat, demountable rims with one extra rim, carried on rear; large size speedometer; clear vision, rain vision glass front; special mohair top with dust hood, completely enclosing bows. (No allowance will be made for any part of standard equipment omitted by customer's order.)

PRICE—\$2,250 f. o. b. Oshawa.

Detailed Specifications. Model "B-55."

BODY—Hammered aluminum, continuous stream-line type; handsome plain rich design. The cowl is extra long, but beautifully moulded and tapered. The rear seat is hammered out of one piece of aluminum without a joint, perfectly plain and rich. There is abundant leg room in front, with room for three passengers. The tonneau seat is extra wide and roomy, with a wonderful lot of space between the front and rear seats. Seats extra low. Upholstering, extra deep; highest possible grade throughout.

FENDERS—Most beautiful ever designed; hand hammered with full oval crown, rounded off corners. The most expensive and exclusive fenders on any car in America.

FRAME—Pressed steel, extra heavy construction, with four-inch rise over rear axle.

SPRINGS—Highest grade spring steel, double heat treated, front, semi-elliptic; rear, three-quarter elliptic, very long and wide with scroll ends, 56 inches by 2½ inches.

FRONT AXLE—Drop forged I-beam section with drop forged yokes, tie rod ends and steering spindles. Front wheels fitted with extra large cup and cone ball bearings.

REAR AXLE—Full floating type, heat treated nickel steel axle shafts; special high duty ball bearings. Universal bearing on front end of third member takes all driving and torsional strains and relieves the universal joint.

WHEELS—Wood, artillery type, with demountable rims. Extra large hub flanges and heavy spokes.

TIRES—36 x 4½ inches; non-skid on rear.

WHEEL BASE—130 inches.

TREAD—56 inches.

MOTOR—Six cylinder, four cycle, valve-in-the-head type. Cylinders cast in pairs, semi-steel analysis; noiseless ball and adjustable push rods working in felt socketed rocker arms. Five bearing crank shaft with bronze backed, babbitt lined bearings. Exceptionally large bearing surfaces. Develops 48 actual h. p. under brake test.

COOLING—Water circulated by gear driven centrifugal pump. Nickel-plated inlet and outlet water manifolds. Radiator, vertical tube and plate type with large water capacity. Fan running on plain noiseless bearings, positive belt driven from pump shaft.

IGNITION—Jump spark; current supplied by Delco system, which also furnishes current for lights and for electrical cranking device. Reserve set of dry cells.

CARBURETOR—Automatic float feed, supplied by air pressure engine driven pump, flow from extra large gasoline tank at rear of car. Auxiliary air pressure hand pump.

LUBRICATION—Self contained splash system; oil circulated by gear pump; sight feed on dash.

CLUTCH—Extra large leather faced aluminum cone; springs under leather to prevent harsh action.

TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Heat treated nickel steel transmission gears. Clutch gear, heat treated special steel, running on annular ball bearings; counter gear, nickel steel, heat treated, running on bronze bearings.

Detailed Specifications. Model "B-55."

DRIVE—Direct to bevel gears in differential; nickel steel heat treated propeller shaft, carried on extra efficient high duty ball bearings, with ball thrust bearings. Drive shafts, nickel steel, heat treated, running on special high duty bearings. Differential gears, steel drop forgings, case hardened. Bevel pinion, heat treated nickel steel. Teeth, corrected form, insuring uniform strength in both pinion and bevel gears.

BRAKES—Service external contracting, emergency internal expanding; both on rear wheel hubs. Brake drums extra large. Very effective and positive, but entirely eliminating dragging and grabbing.

STEERING GEAR—Located on left side, semi-irreversible; split nut and worm type; fully adjustable; ball thrust bearing. Nineteen-inch steering wheel with inserted spider.

LEFT DRIVE.

CONTROL—Friction-retained spark and throttle levers on top of steering wheel. Pedals for service brake and clutch, foot accelerator and muffler cut-out on the left side; levers for gear changes and emergency brake inside in centre of body.

CENTER CONTROL.

UPHOLSTERING—First grade leather, pebble grained, blue-black, dull finish, stuffed with high-grade curled hair. Turkish cushions extra deep. All seats tilted to give most comfortable position.

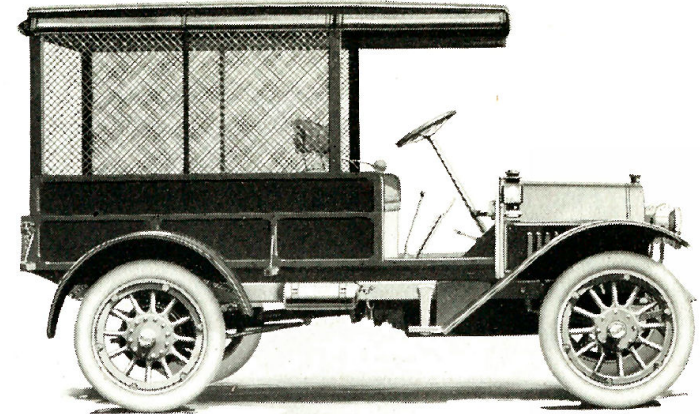
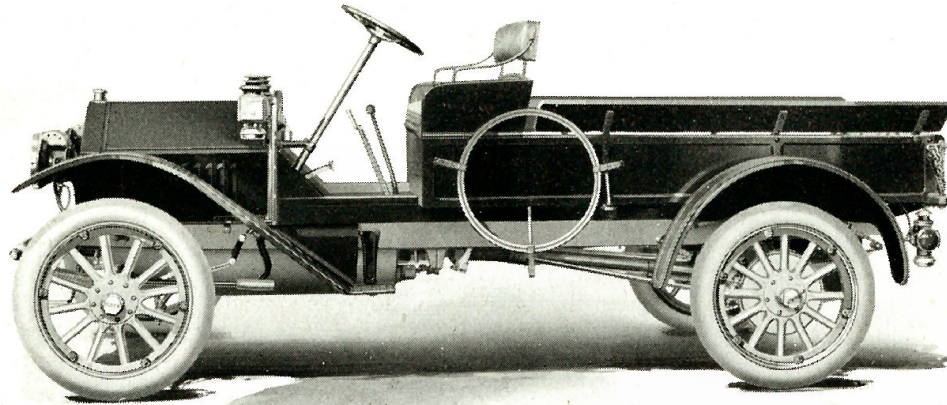
COLORS—Body, Oshawa blue; chassis and wheels black.

STARTER—The Delco system electrical self-cranking is an integral part of the car combined with the necessary equipment for lighting and for ignition.

STANDARD EQUIPMENT—Electric head lamps with "dimming" attachment; new type electric tail lamp with concealed wiring; electric night light for instrument board, with electric trouble lamp equipment; electric night light under cowl behind instrument board, showing oil sight feed, etc., electric horn, large size Warner speedometer, high-grade eight-day clock in door of cabinet compartment; hand air pressure pump on steering column used for starting; air pressure gauge on instrument board; complete Delco switches and control in combination with Yale lock. All apparatus made accessible by the instrument board being quickly removable. Foot rail; coat rail; fibre mat in tonneau; jack; complete tool equipment; demountable rims—one extra carried on rear; rain vision, clear vision ventilating wind shield; genuine "Velvet" shock absorbers on rear. Top, new English type with natural wood bows and nickel plated slat irons, new automatic adjustment for front bow, furnished only with specially treated waterproof, genuine English top material in light shade, complete with easy fitting dust hood. New style bumper in front of car, regular equipment. German silver radiator.

PRICE—Model B55—Five Passenger, \$2,700 f.o.b. Oshawa; Model B55, Seven Passenger, \$2,780 f.o.b. Oshawa; Model B54, Three Passenger Roadster, \$2,750 f.o.b. Oshawa.

EXTRAS—Power tire pump with pressure gauge and all attachments. Price, \$50.00.



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